

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A method for dynamic allocation of transmission resources to a plurality of communications between a base station and a plurality of mobile terminals, each resource including a plurality of possible values, an allocation controller associated with the base station, referred to as the fast allocation controller, being able to allocate to the communications only certain combinations of possible values, referred to as available resources, wherein said fast allocation controller generates a pseudo-random sequence and performs the allocation at a regular interval by selecting at least one available resource for each of a plurality of communications between the base station and the plurality of mobile terminals at a start of each regular interval ~~communication~~ according to a value of the pseudo-random sequence.

Claim 2 (Currently Amended): The method according to Claim 1, further comprising sequentially indexing each of the available resources for each regular interval, wherein a combination of available resources is allocated if an index of the available resource is equal to a value in the pseudo-random sequence.

Claim 3 (Previously Presented): The method according to Claim 1, further comprising transmitting parameters for generating the pseudo-random sequence from the base station to the mobile terminals and generating the pseudo-random sequence by the mobile terminals from the generation parameters.

Claim 4 (Previously Presented): The method according to claim 1, wherein the transmission resources of a plurality of adjacent base stations are controlled by a slow

allocation controller, the resources available for each base station are determined regularly, at a first frequency, by the slow allocation controller and transmitted by the slow allocation controller to the fast allocation controllers associated with the base stations.

Claim 5 (Previously Presented): The method according to Claim 1, further comprising transmitting an item of information supplying the resources available at the base station to the mobile terminals which it serves.

Claim 6 (Currently Amended): The method according to Claim 1, wherein the performing the allocation allocates the resources available at the base station at a second frequency substantially higher than the first frequency.

Claim 7 (Previously Presented): The method according to Claim 1, wherein the resources include at least one of transmission time slots, spectral spreading codes intended to separate the different communications and transmission frequencies.

Claim 8 (Currently Amended): The method according to Claim 1, wherein the generating generates the pseudo-random sequence by:

$$X(1) = x_0$$

$$X(i+1) = \text{mod}(a \cdot X(i) + b - 1, 2^N) + 1$$

where  $x_0$  is a word of  $N$  bits,  $x_0$  representing a the seed of the sequence,  $a-1$  is a non-zero integer which is a multiple of 4,  $i$  is a sequence index, and  $b$  is an odd number,

and where  $N$  is an integer such that  $2^N$  is greater than a maximum number of available resources.

Claim 9 (Previously Presented): The method according to Claim 7, wherein each base station and the mobile terminals form a portion of a UTRA-TDD mobile telecommunication system, a first subset of available resources is dedicated to uplink communications and a second subset of available resources is dedicated to downlink communications, and wherein the allocating allocates the available resources of the first subset to the uplink communications independently of allocating the available resources of the second subset to the downlink communications.

Claim 10 (Currently Amended): The method according to Claim 3 ~~[[1]]~~, wherein the transmitting transmits the parameters ~~paramters~~ for generating the pseudo-random sequence over the common control channel BCH.

Claim 11 (Currently Amended): A communication system including:  
a plurality of adjacent base stations including a base station;  
a plurality of mobile terminals, each mobile terminal having a communication transmitted from the base station in the plurality of adjacent base stations;  
a plurality of transmission resources, each transmission resource including a plurality of possible values that may be allocated to the communications of the plural mobile terminals;

a fast allocation controller associated with the base station and configured to generate a pseudo-random sequence at a first regular interval, transmit a seed for each first regular interval for generating the pseudo-random sequence to the plurality of mobile terminals, and allocate at a start of each first regular interval the available resources to each communication in the plurality of communications from the base station to the plurality of mobile terminals according to a value of the pseudo-random sequence;

a slow allocation controller configured to determine, at a second regular interval ~~first frequency~~, available resources for each base station, the available resources including a subset of the possible values, said slow allocation controller further configured to transmit the available resources to the fast allocation controller, said second regular interval longer than said first regular interval;

said mobile terminals further configured to generate the pseudo-random sequence from the seed; and

said base station further configured to transmit a first communication to a first terminal in the plurality of mobile terminals and a second communication to a second terminal in the plurality of mobile terminals according to the allocated resources.

Claim 12 (Currently Amended): A method for dynamic allocation of transmission resources to a communication between a base station and a mobile terminal, each resource including a plurality of possible values, the method comprising:

determining available resources at first regular interval ~~frequency~~, the available resources including a subset of the possible values of each transmission resource to be made available to the base station;

generating a pseudo-random sequence for the base station, said pseudo-random sequence being generated from a seed;

transmitting the seed for generating the pseudo-random sequence from the base station to the mobile terminal at a predetermined frequency;

generating the pseudo-random sequence from the seed by the mobile terminal; and

allocating at a start of each first regular interval the available resources to the communication according to a value in the pseudo-random sequence.

Claim 13 (Withdrawn): A method for dynamic allocation of resources to a communication between a base station and a mobile terminal, each resource including a plurality of possible values, the method comprising:

generating a matrix to store the plurality of possible values, each cell of the matrix being associated with a combination of possible values, and said matrix including at least two dimensions;

assigning an index to each cell in the matrix;

generating a pseudo-random sequence by a fast allocation controller associated with the base station; and

allocating a combination of possible values in the plurality of possible values to the communication based on the assigned index and a value in the pseudo-random sequence.

Claim 14 (Withdrawn): A method of dynamic allocation of resources to a communication between a base station and a mobile terminal, each resource including a plurality of possible values, the method comprising:

determining a plurality of available combinations of values that are available for the base station from the plurality of possible values;

generating a pseudo-random sequence by a fast allocation controller associated with the base station;

selecting a subset of combinations of values from the determined plurality of available combinations based on a value of the pseudo-random sequence, a number of combinations of values in the subset of combinations of values being smaller than a number of combinations of values in the determined plurality of available combinations; and

allocating at least one combination of values in the subset of combinations of values to the communication between the base station and the mobile terminal.